



SUMMARY OF FEDERAL RAILROAD ADMINISTRATION SAFETY ASSESSMENT OF METRO NORTH

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THE METRO NORTH SYSTEM

Metro North Railroad's three main lines – the Hudson, Harlem, and New Haven lines – run north from Grand Central Station to suburban New York and Connecticut. Metro North, which is a subsidiary of New York State's Metropolitan Transportation Authority, maintains the equipment and infrastructure, and operates and controls the trains on each of these lines.

QUESTION

This report summarizes the Federal Railroad Administration's recent assessment of Metro North Railroad's safety.

SUMMARY

The Federal Railroad Administration (FRA) launched an in-depth investigation of Metro North Railroad on December 16, 2013 in response to several "high profile accidents" in a span of seven months. The most serious accident occurred on December 1, 2013, when a train en route to Grand Central Station derailed near Spuyten Duyvil station in New York, killing four

passengers and injuring more than 70. The other accidents included the death of a Metro North maintenance of way worker in West Haven on May 28, 2013, and two other derailments, including one on the New Haven Line that injured more than 50 people.

The FRA report, released on March 14, 2014, found three overarching safety concerns:

- An overemphasis on on-time performance,
- An ineffective safety department and poor safety culture, and
- An ineffective training program

"Metro North has placed a strong emphasis on on-time performance," the report said. "This emphasis...combined with the increased volume of train activity, appears to have led managers and supervisors to allow inspections, maintenance, and employee training to lapse. This, in turn, led to a deficient safety culture, which manifested itself in increased risk and reduced safety on Metro North."

"This is a severe assessment, and it is intended as an urgent call to action to Metro North's leadership," the report said. "Metro North must never compromise safety in the interests of the reliability of its train schedule or the efficiency in its railroad operations. Senior leadership must put safety front and center, and communicate and implement that priority throughout the organization. This action must be taken immediately."

FRA enumerated a number of corrective measures for Metro North to take. It directed the railroad to submit to it, by May 17, 2014, plans to improve both its safety department's mission and effectiveness and its training program. The FRA will meet monthly with Metro North to review and evaluate its progress.

We have attached a copy of the report.

This report summarizes the FRA report's three overarching concerns, its specific findings, and the specific actions it directs Metro North to take. Attachment #1, taken from the report, lists FRA's safety concerns and directed actions.

OVERARCHING CONCERNS

Overemphasis on On-Time Performance

"Safety on Metro North was routinely overshadowed by its emphasis on on-time performance," the FRA said. This caused "a detrimental effect on safety, adversely affecting the inspection and maintenance of track and negatively impacting train operations."

For example, the investigation found that:

- Signal department employees reported pressure from the Operations Control Center to rush when responding to signal failures. With the increased number of trains operating on Metro North, the time allotted to complete routine, federally-mandated signal testing was significantly reduced.
- Track Department employees said it was difficult for them to get the time needed to make necessary track repairs.

- When implementing the federally required operational testing program, testing officers reported that they did not conduct stop signal or restricted speed tests on main track because of the priority given on-time performance.

Ineffective Safety Department and Poor Safety Culture

According to FRA, a “safety culture” is “concerned with minimizing the exposure of employees, customers, and members of the public to conditions considered dangerous or injurious.”

FRA investigators “noted obvious signs of a weak safety culture.”

“Currently, no single department or office, including the safety department, proactively advocates for safety, and there is no effort to look for, identify, or take ownership of safety issues across the operating departments,” it said.

Specifically, investigators found:

- A disconnect between Metro North’s safety department and the railroad’s daily operations;
- A lack of communication between the safety department and other safety-critical departments;
- Safety department personnel did not observe and correct deficiencies in the field;
- Numerous, easily detectable safety issues existed across multiple disciplines that should have been discovered by management, including the fact that Metro North employees were not wearing personal protective equipment;
- Employees were observed using cell phones inappropriately; and
- Poor attendance at safety briefings.

An Ineffective Training Department

FRA found the overall training of Metro North employees to be “inconsistent and often fragmented,” an especially worrisome finding because Metro North is bringing on many new employees.

In response to the retirements of many experienced employees, the report said, Metro North hired approximately 700 new employees in 2013, and expects to hire approximately 800 new employees in 2014.

“An effective training program for new and existing employees with accurate documentation is critical for safe operations,” the report said.

Yet, FRA found that while the training department is responsible for the overall training of railroad employees, it does not train all employees. Instead, “the training is fragmented across different departments.”

In addition, FRA found Metro North’s training records system to be “burdensome, inefficient, and a source of frustration for [Training] Department employees.” The FRA noted that Metro North tried to streamline the process by incorporating the training records into another recordkeeping system, but questioned the new system’s ability to manage the training records.

SPECIFIC FRA FINDINGS

Fourteen teams of investigators conducted the Metro North investigation, interviewing management and staff at all levels in order to “go beyond standard regulatory inspections and comprehensively identify areas to improve.” Investigators found the following deficiencies in seven general areas.

Track Safety

Track safety suffered from:

- inadequate supervision of the track program and inadequate training of inspectors;
- the general state of the railroad’s track maintenance; and
- the lack of time available to complete track inspections and repair.

Railroad Operating Rules

The report found that Metro North did not comply with several federal requirements for operating trains over grade crossings under certain conditions.

Qualification and Certification of Engineers and Conductors

FRA said Metro North needs to address issues it found with:

- testing and monitoring,
- compliance with stop signals,
- gaps in training, and
- disorganized records

More specifically, FRA discovered that many supervisors did not follow the industry standard of conducting at least one face-to-face annual meeting a year to review an employee’s performance

Metro North also (1) did not train any of its testing officers on how to conduct operational testing, (2) did not have documentation regarding the required qualifications of each testing officer, and (3) failed to review its operational testing and accident data every six months.

Workplace Safety and "Blue Signals"

The FRA found Metro North's application of roadway worker protection rules to be inconsistent. It also found that Metro North's conflicting operating rules on cell phone use results in "uncertainty and confusion."

"Cell phone use appeared to be commonplace and accepted by maintenance of way employees," the report said.

The FRA also found a Metro North did not comply with "blue signal" protection requirements. These requirements implement federal regulations prescribing minimum standards for the protection of railroad employees inspecting, testing, repairing, and servicing rolling equipment whose activities require them to work on, under, or between the equipment and places them at risk of injury posed by moving equipment.

Train Control Systems

Although Metro North has extensive and detailed signal standards, the FRA found it does not have a suitable recordkeeping system to ensure that inspections and tests are performed on time. In addition, the railroad significantly reduces the time allotted to the signal department to complete the required inspections and tests.

Operations Control Center

The FRA found that (1) about half the workforce in Metro North's control center has less than three years' experience, (2) managers are not formally trained on how to perform operational testing for rail traffic controllers, and (3) there were no sound barriers between controllers or chief dispatchers, resulting in increased risk of controller distraction. The FRA identified fatigue as a possible risk area.

"Maintenance of Way" fatigue

Investigators found that Metro North's practices increase maintenance of way worker overtime, and with it, the risk of fatigue and accidents. (Maintenance of way workers build and maintain the tracks, bridges, buildings, and other railroad structures.) Weekday and weekend overtime is common and sometimes extensive, the FRA found. In addition, as of February 2014 Metro North had more than 100 vacancies due to retirement of maintenance of way employees

METRO NORTH SAFETY CONCERNS AND FRA'S SPECIFIC DIRECTED ACTIONS

The report directs Metro North to take specific actions to address each deficiency. We outline them below.

Track Safety Standards

- Create a plan for the use of advanced inspection technology
- Ensure track is maintained to Metro North Track Standards
- Collaborate with labor unions to increase the availability of off-hours maintenance time
- Improve the training program for track inspection and maintenance
- Analyze train schedules to determine whether there is sufficient time for inspection and maintenance of track

Railroad Operating Rules

- Change operating rules for operation of trains at grade crossings when certain conditions exist

Qualifications and Certification of Engineers and Conductors

- Improve operational testing and inspections for operating crews
- Conduct operational testing on main tracks
- Improve the training program for locomotive engineers and conductors
- Analyze event recorder data as a part of operational testing

Railroad Workplace Safety

- Improve training program for roadway worker protection

Train Control Systems

- Improve training program for inspection and maintenance of signals
- Analyze train schedules to determine whether there is sufficient time for inspection and maintenance of signals

Worker Protection (Blue Signal Protection)

- Improve training program for employees who maintain rolling stock
- Ensure that blue signal protection is effective

Operations Control Center

- Review and address risk for fatigue
- Mitigate noise distractions
- Improve training program for employees who dispatch trains
- Improve rules governing the use of panel blocking devices to ensure that they cannot be inadvertently removed

Maintenance of Way Employee Fatigue

- Review and address risk for fatigue
- Improve training program all Maintenance of Way employees, particularly track inspectors and supervisors

ATTACHMENT 1

Table 1. Metro-North Safety Concerns and FRA's Specific Directed Actions

Safety-Critical Concerns	FRA Directed Actions
Track Safety Standards	<ul style="list-style-type: none">• Create a plan for the use of advanced inspection technology• Ensure track is maintained to Metro-North Track Standards• Collaborate with labor unions to increase the availability of off-hours maintenance time.• Improve training program for track inspection and maintenance• Analyze train schedules to determine whether there is sufficient time for inspection and maintenance of track
Railroad Operating Rules	<ul style="list-style-type: none">• Change operating rules for operation of trains at grade crossings when certain conditions exist
Qualifications and Certification of Locomotive Engineers and Conductors	<ul style="list-style-type: none">• Improve operational testing and inspections for operating crews• Conduct operational testing on main tracks• Improve training program for locomotive engineers and conductors• Analyze event recorder data as a part of operational testing
Railroad Workplace Safety	<ul style="list-style-type: none">• Improve training program for roadway worker protection
Train Control Systems	<ul style="list-style-type: none">• Improve training program for inspection and maintenance of signals• Analyze train schedules to determine whether there is sufficient time for inspection and maintenance of signals
Worker Protection (Blue Signal Protection)	<ul style="list-style-type: none">• Improve training program for employees who maintain rolling stock• Ensure that blue signal protection is effective
Operations Control Center	<ul style="list-style-type: none">• Review and address risk for fatigue• Mitigate noise distractions• Improve training program for employees who dispatch trains• Improve rules governing the use of panel blocking devices to ensure that they cannot be inadvertently removed
Maintenance-of-Way Employee Fatigue	<ul style="list-style-type: none">• Review and address risk for fatigue• Improve training program all Maintenance of Way employees, particularly track inspectors and supervisors

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